

REMARKS

Claims 1, 2, 20, 24, 26, 29, 34-37, and 60 have been amended.

Claims 32, 33 have been cancelled without prejudice.

Claims 1-7, 9, 20-31, 34-37, 39-43, and 60-67 are currently pending in this application.

No Claims have been withdrawn.

Claims 1, 20, 29, 37, and 60 are in independent format.

1. Election/Restrictions – Clarification of Pending Claims

In the previous office action, the Examiner requested that Applicant restrict the claims in the invention to one of four inventions, identified as Group (I) Claims 1-7, 20-43, and 60 drawn to a mounting flange; Group (II) Claims 8 and 16-19 drawn to a method for a centering cone; Group (III) Claims 9-15 drawn to a centering cone; and Group (IV) Claims 44-59 drawn to a mounting pin. The Examiner further stated that the application contains claims directed to three distinct Species of the claimed invention, identified as Species (I), as illustrated in Figures 5-7 and 16; Species (II), as illustrated in Figures 9, 10, 13, and 14; and Species (III), as illustrated in Figure 12.

Applicant elected to proceed with the invention identified as Group (I), consisting of original Claims 1-7, 20-43, and 60, drawn to a mounting flange, and argued that Species I & II were not patentably distinct, and comprised the Applicant's election. On Page 2 of the Office Action dated January 27, 2005, the Examiner has indicated that Applicant's arguments were persuasive, and that Species I & II have been rejoined. The combination of Species I and II consists of Claims 1-7, 9, 20-35, 37, 39-43, 60, and new claims 61-67.

The Examiner has further indicated in the January 27th Office Action that these claims have been examined on the merits. However, on Page 1 of the same Office Action, the Examiner has indicated that Claims 4-8, 29-43, 60, and 65-67 *are withdrawn from consideration, and that only claims 1-3, 9, 20-28, and 61-64 are rejected*. This statement appears to be incorrect. Applicant has not withdrawn any claims from consideration, and the Examiner has provided detailed rejections as to all pending Claims 1-7, 9, 20-35, 37, 39-43, 60, and 61-67.

This response has been prepared under the assumption that the status of the claims identified in the "Disposition of Claims" on Page 1 of the Office Action of January 27, 2005 is incorrect, and that the substance of the Office Action found at Pages 2-5 correctly identifies all pending claims in the application. If this is incorrect, the Examiner is respectfully asked to contact Applicant's representative to provide clarification as to the status of the claims in this application.

2. Rejections Under 35 U.S.C. § 102

The Examiner's rejection of Claims 1, 3, 20-28, and 61-64 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,888,128 to *Mitchell* is respectfully traversed.

The MPEP §2131 provides:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as contained in the ... claim" *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 9 USQP2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

Contrary to the Examiner's statements that all elements of independent Claim 1 are disclosed by the '128 *Mitchell* reference, the required limitation of a mounting flange assembly configured to provide infinite radial adjustment of the contact tips about the spindle shaft between a minimum radial dimension and a maximum radial dimension to engage the plurality of radially spaced lug holes for a plurality of symmetric and axially centered configurations each having a different number of lug holes is not disclosed.

The '128 *Mitchell* reference discloses a wheel balancing system in which a set of pins (30) are placed in mounting holes (32) defined by the overlap of slots in first and second plates (34 and 35). By rotating the first plate (34) relative to the second plate (35), the radial position of the mounting holes (32) is changed to accommodate vehicle wheels having a single lug hole pattern but which have different radial dimensions. To accommodate a vehicle wheel having a different lug hole pattern (i.e. 3 lugs, 4 lugs, or 5 lugs), additional plates (34, 35) are provided with the '128 *Mitchell* system (See: Figures 4, 5, and 6).

The '128 *Mitchell* reference fails to disclose a *single* mounting flange assembly configured to accommodate a plurality of lug hole patterns having *both* a different number of lug holes *and* differing radial dimensions, as required by independent Claim 1. Accordingly, the rejection of Claim 1 and dependent Claims 3 and 61-64 under 35 U.S.C. § 102(b) is unsupported by the '128 *Mitchell* reference, and should be withdrawn.

Contrary to the Examiner's statements with respect to independent Claim 20 and dependent Claims 21-18, not all elements of independent Claim 20 are disclosed by the '128 *Mitchell* reference. Specifically independent Claim 20 requires that the plurality of

slots in the flange plate and the plurality of slots in the adjusting plate cooperatively define a plurality of axially symmetric sets of at least three unobstructed passages through the adjustable mounting flange. As seen in the '128 *Mitchell* reference, the combination of slots in the plates (34, 35) only define a single axially symmetric set of unobstructed passages through the plates. (See: Figures 4, 5, and 6). To accommodate different axially symmetric sets of passages (corresponding to 3, 4, or 5 lug wheel patterns), the '128 *Mitchell* reference requires a different set of plates for each configuration.

The '128 *Mitchell* reference fails to disclose a *single* adjustable mounting flange configured with flange plates and adjusting plates to define a plurality of axially symmetric sets of at least three unobstructed passages, as required by independent Claim 20. Accordingly, the rejection of Claim 20 and dependent Claims 21-28 under 35 U.S.C. § 102(b) is unsupported by the '128 *Mitchell* reference, and should be withdrawn.

3. Rejections Under 35 U.S.C. § 103

a. Claims 2 and 9

The Examiner's rejection of Claims 2 and 9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,888,128 to *Mitchell* in view of U.S. Patent No. 2,270,657 to *Kraft* is respectfully traversed.

The Examiner identifies the multiplicity of grooves (14) shown on the conical surface of the carrier (10) of the '657 *Kraft* reference as being "taperings" which would enable one of ordinary skill in the art to modify the centering cone disclosed by the '128 *Mitchell* reference to accommodate wheels having central openings of various sizes.

The grooves (14) shown in the '657 *Kraft* reference are recessed into the surface of a *single* tapered surface, and function to engage the inner peripheral edge (15) of a wheel structure, as well as to provide a visual reference for wheels which do not exactly match with the grooves (14). (Col. 2-3, lines 43-5).

However, as clarified in amended Claim 2, and set forth in Claim 9, the double-tapered cone of the present invention includes two distinct tapered surfaces, i.e. a double-tapered cone, which have different and opposite angular orientations. Specifically, as set forth in Claims 2 and 9, the minimum diameter of each tapered surface are adjacent axially opposite ends of the component. This is shown in Figures 1 and 2, and can be further visualized as a pair of conical surfaces of differing angles coupled together at their bases, i.e. a " <> " shape. The cited combination of the '128 *Mitchell* reference and the '657 *Kraft* reference fails to render obvious a *double-tapered* cone wherein the conical surfaces have different and opposite angular orientations. Accordingly, Claims 2 and 9 are seen as allowable under 35 U.S.C. § 103(a) over the combination of the '128 *Mitchell* reference and the '657 *Kraft* reference.

Claims 4-7, 29-35, 37, 39-43, and 60

The Examiner's rejection of Claims 4-7, 29-35, 37, 39-43, and 60 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,888,128 to *Mitchell* in view of Applicant's admission stated as stated in pages 15 & 16 of Applicant's amendment filed 11/08/04 is respectfully traversed.

The Examiner's stated basis for the rejection is that the '128 *Mitchell* reference discloses the features of the claimed invention as set forth in the Examiner's rejection of

Claims 1, 3, 20-28, and 61-64, but does not disclose a plurality of adjacent discrete detent positions configured to receive the mounting pins. The Examiner further contends that in view of Applicant's admission at pages 15 and 16 of the Amendment filed 11/8/04, it would have been obvious to one of ordinary skill at the art to add detents to the slots disclosed by the '128 *Mitchell* reference, since these detents have been admitted by the Applicant to be obvious variants, i.e., not patentably distinct, from the slots of Species I, such as the slots disclosed by the '128 *Mitchell* reference.

Applicant respectfully disagrees with Examiner's statements regarding Applicant's admissions. The Applicant's arguments presented at pages 15 and 16 of the Amendment filed 11/8/04 were not specific towards a comparison of slots and detents. Rather, as seen at page 15, Applicant's arguments illustrated how both embodiments shown in Species I and Species II were directed towards mounting flange assemblies configured to provide infinite radial adjustment to the positions of the mounting pin contact tips between minimum and maximum radial dimensions, enabling the mounting flange assemblies to engage a variety of vehicle wheel lug hole configurations having different numbers of lug holes and different radial spacing of the lug holes.

As set forth above in response to the rejections under 35 U.S.C. § 102(b), Applicant has respectfully identified distinctions between the '128 *Mitchell* reference and the claimed invention, including the requirement that the mounting flange assembly of the present invention be configured to accommodate a plurality of wheel lug hole patterns which vary both in the radial displacement of the lug holes about the wheel center and in the number of symmetrically aligned lug holes. The '128 *Mitchell*

reference fails to disclose a single mounting flange assembly capable of accommodating such a variety of wheel lug hole patterns. Applicant's statements on pages 15 and 16, with respect to slots and detents, do not address this shortcoming of the '128 *Mitchell* reference, and hence, the Examiner's initial statement that the '128 *Mitchell* reference discloses all of the instant claimed invention except for a plurality of adjacent detents is incorrect, and the missing elements are not supplied by Applicant's statements. Accordingly, Claims 4-7, 29-32, 34, 35, 37, 39-43, and 60 are seen as allowable under 35 U.S.C. § 103(a) over the '128 *Mitchell* reference in view of Applicant's statements on pages 15 and 16 of the Amendment of 11/08/04, and for the additional reasons set forth below.

Dependent Claims 4-7 require, in addition to the plurality of adjacent detents, that each of the plurality of mounting pins include a radially compliant tip. The '128 *Mitchell* reference does not disclose the use of a radially compliant tip on the mounting pins, i.e. a mounting pin with a tip which can move in a radial direction relative to the mounting plate in which the mounting pin is installed, as required by Claims 4-7. (See: Para. [0085 – 0089]. The radially compliant tips on the mounting pins operate in conjunction with the adjacent detents to provide for infinite radial adjustment to the mounting pin positions between a minimum and maximum radial dimension of the mounting flange assembly. Accordingly, dependent Claims 4-7 are further seen as allowable under 35 U.S.C. § 103(a) over the '128 *Mitchell* reference in view of Applicant's statements at pages 15 and 16 of the Amendment of 11/8/04.

Dependent Claims 41 and 42 require, in addition to the plurality of adjacent detents, that each of the sets of mounting pine receiving bores include a plurality of

bores disposed about a common radial line from an axis of the central bore (Claim 41) or a common arcuate line from an axis of the central bore (Claim 42). The slots of the '128 *Mitchell* reference are neither radially aligned with, nor arcuate to, the axis of the central bore. Rather, as is clearly seen in Figs. 3, 4, and 5 of the '128 *Mitchell* reference, and described as tangential to a circle concentric with the axis (Co. 3, lines 29-33). Accordingly, dependent Claims 41 and 42 are further seen as allowable under 35 U.S.C. § 103(a) over the '128 *Mitchell* reference in view of Applicant's statements at pages 15 and 16 of the Amendment of 11/8/04.

Independent Claim 60 requires, in addition to the plurality of receiving bores, that each of the plurality of mounting pins include a radially compliant tip. The '128 *Mitchell* reference does not disclose the use of a radially compliant tip on the mounting pins, i.e. a mounting pin with a tip which can move in a radial direction relative to the mounting plate in which the mounting pin is installed, as required by Claim 60. (See: Para. [0085 – 0089]. The radially compliant tips on the mounting pins operate in conjunction with the mounting pin receiving bores to provide for infinite radial adjustment to the mounting pin positions between a minimum and maximum radial dimension of the mounting flange assembly. Accordingly, independent Claim 60 is further seen as allowable under 35 U.S.C. § 103(a) over the '128 *Mitchell* reference in view of Applicant's statements at pages 15 and 16 of the Amendment of 11/8/04.

4. Conclusion

Based on the foregoing, the allowance of all pending claims is requested.

If for any reason the Examiner is unable to allow the application on the next Office Action and feels that an interview would be helpful to resolve any remaining

issues, the Examiner is respectfully requested to contact the undersigned attorney for the purpose of arranging such an interview.

Respectfully submitted,



Mark E. Books, Reg. No. 40,918
Polster, Lieder, Woodruff & Lucchesi, L.C.
12412 Powerscourt Drive, Suite 200
St. Louis, Missouri 63131
Tel: (314) 238-2400
Fax: (314) 238-2401
mbooks@patpro.com